

Product datasheet

Specifications



servo motor BSH, Lexium 05, 2.7 Nm, 6000rpm, 100mm, key shaft, Sincos multi turn, without brake, IP65, straight

BSH1001P32A1A

! Discontinued

! Discontinued on: May 4, 2023

Main

Device short name	BSH
Product or component type	Servo motor
Maximum mechanical speed	6000 rpm
Continuous stall torque	3.39 N.m for LXM15LD21M3, 230 V, single phase 2.7 N.m for LXM15LD10N4, 230 V, three phase 3.39 N.m for LXM15LD10N4, 400 V, three phase 3.39 N.m for LXM15LD10N4, 480 V, three phase 3.39 N.m for LXM15LD21M3, 230 V, three phase 3.39 N.m for LXM15LD17N4, 230 V, three phase 3.39 N.m for LXM15LD17N4, 400 V, three phase 3.39 N.m for LXM15LD17N4, 480 V, three phase 3.4 N.m for LXM05AD17M3X, 200...240 V, three phase 3.4 N.m for LXM05AD22N4, 380...480 V, three phase 3.4 N.m for LXM05BD17M3X, 200...240 V, three phase 3.4 N.m for LXM05BD22N4, 380...480 V, three phase 3.4 N.m for LXM05CD17M3X, 200...240 V, three phase 3.4 N.m for LXM05CD22N4, 380...480 V, three phase
Peak stall torque	7.08 N.m for LXM15LD21M3, 230 V, single phase 6.19 N.m for LXM15LD10N4, 230 V, three phase 6.19 N.m for LXM15LD10N4, 400 V, three phase 6.19 N.m for LXM15LD10N4, 480 V, three phase 7.08 N.m for LXM15LD21M3, 230 V, three phase 7.08 N.m for LXM15LD17N4, 230 V, three phase 7.08 N.m for LXM15LD17N4, 400 V, three phase 7.08 N.m for LXM15LD17N4, 480 V, three phase 7.1 N.m for LXM05AD17M3X, 200...240 V, three phase 7.1 N.m for LXM05AD22N4, 380...480 V, three phase 7.1 N.m for LXM05BD17M3X, 200...240 V, three phase 7.1 N.m for LXM05BD22N4, 380...480 V, three phase 7.1 N.m for LXM05CD17M3X, 200...240 V, three phase 7.1 N.m for LXM05CD22N4, 380...480 V, three phase
Nominal output power	1300 W for LXM15LD17N4, 400 V, three phase 1500 W for LXM15LD10N4, 480 V, three phase 950 W for LXM15LD21M3, 230 V, single phase 1300 W for LXM15LD10N4, 400 V, three phase 1500 W for LXM15LD17N4, 480 V, three phase 500 W for LXM05AD17M3X, 200...240 V, three phase 500 W for LXM05BD17M3X, 200...240 V, three phase 500 W for LXM05CD17M3X, 200...240 V, three phase 850 W for LXM15LD10N4, 230 V, three phase 900 W for LXM05AD22N4, 380...480 V, three phase 900 W for LXM05BD22N4, 380...480 V, three phase 900 W for LXM05CD22N4, 380...480 V, three phase 950 W for LXM15LD17N4, 230 V, three phase 950 W for LXM15LD21M3, 230 V, three phase

Nominal torque	<p>3 N.m for LXM15LD21M3, 230 V, single phase</p> <p>2.5 N.m for LXM15LD10N4, 480 V, three phase</p> <p>2.5 N.m for LXM15LD17N4, 480 V, three phase</p> <p>2.7 N.m for LXM15LD10N4, 230 V, three phase</p> <p>2.7 N.m for LXM15LD10N4, 400 V, three phase</p> <p>2.7 N.m for LXM15LD17N4, 400 V, three phase</p> <p>2.92 N.m for LXM05AD22N4, 380...480 V, three phase</p> <p>2.92 N.m for LXM05BD22N4, 380...480 V, three phase</p> <p>2.92 N.m for LXM05CD22N4, 380...480 V, three phase</p> <p>3 N.m for LXM15LD17N4, 230 V, three phase</p> <p>3 N.m for LXM15LD21M3, 230 V, three phase</p> <p>3.16 N.m for LXM05AD17M3X, 200...240 V, three phase</p> <p>3.16 N.m for LXM05BD17M3X, 200...240 V, three phase</p> <p>3.16 N.m for LXM05CD17M3X, 200...240 V, three phase</p>
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Nominal speed	<p>3000 rpm for LXM15LD10N4, 230 V, three phase</p> <p>3000 rpm for LXM15LD21M3, 230 V, single phase</p> <p>3000 rpm for LXM05AD22N4, 380...480 V, three phase</p> <p>3000 rpm for LXM05BD22N4, 380...480 V, three phase</p> <p>3000 rpm for LXM05CD22N4, 380...480 V, three phase</p> <p>3000 rpm for LXM15LD17N4, 230 V, three phase</p> <p>3000 rpm for LXM15LD21M3, 230 V, three phase</p> <p>1500 rpm for LXM05AD17M3X, 200...240 V, three phase</p> <p>1500 rpm for LXM05BD17M3X, 200...240 V, three phase</p> <p>1500 rpm for LXM05CD17M3X, 200...240 V, three phase</p> <p>4500 rpm for LXM15LD10N4, 400 V, three phase</p> <p>4500 rpm for LXM15LD17N4, 400 V, three phase</p> <p>6000 rpm for LXM15LD10N4, 480 V, three phase</p> <p>6000 rpm for LXM15LD17N4, 480 V, three phase</p>
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Product compatibility	<p>LXM15LD21M3 at 230 V single phase</p> <p>LXM15LD10N4 at 400 V three phase</p> <p>LXM05AD17M3X at 200...240 V three phase</p> <p>LXM05BD17M3X at 200...240 V three phase</p> <p>LXM05CD17M3X at 200...240 V three phase</p> <p>LXM15LD10N4 at 230 V three phase</p> <p>LXM15LD10N4 at 480 V three phase</p> <p>LXM15LD21M3 at 230 V three phase</p> <p>LXM15LD17N4 at 230 V three phase</p> <p>LXM05AD22N4 at 380...480 V three phase</p> <p>LXM05BD22N4 at 380...480 V three phase</p> <p>LXM05CD22N4 at 380...480 V three phase</p> <p>LXM15LD17N4 at 400 V three phase</p> <p>LXM15LD17N4 at 480 V three phase</p>
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Shaft end	Keyed
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IP degree of protection	<p>IP65 standard</p> <p>IP67 with IP67 kit</p>
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Speed feedback resolution	131072 points/turn x 4096 turns
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Holding brake	Without
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Mounting support	International standard flange
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Electrical connection	Straight connectors
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Complementary

Range compatibility	<p>Lexium 05</p> <p>Lexium 15</p>
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supply voltage max	480 V
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Network number of phases	Three phase
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Continuous stall current	3.5 A
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maximum continuous power	1.6 W
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Maximum permanent current	12 A
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Second shaft	Without second shaft end
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Shaft diameter	19 mm
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Shaft length	40 mm
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Key width	30 mm
Feedback type	Multiturn SinCos Hiperface
Motor flange size	100 mm
Number of motor stacks	1
Torque constant	0.89 N.m/A at 120 °C
Back emf constant	60 V/krpm at 120 °C
Number of motor poles	8
Rotor inertia	1.4 kg.cm ²
Stator resistance	3.8 Ohm at 20 °C
Stator inductance	17.6 mH at 20 °C 19 mH at 20 °C
Stator electrical time constant	4.63 ms at 20 °C 5 ms at 20 °C
Maximum radial force Fr	530 N at 5000 rpm 570 N at 4000 rpm 630 N at 3000 rpm 720 N at 2000 rpm 900 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
Type of cooling	Natural convection
Length	168.5 mm
Centring collar diameter	95 mm
Centring collar depth	3.5 mm
Number of mounting holes	4
Mounting holes diameter	9 mm
Circle diameter of the mounting holes	115 mm
Product weight	4.2 kg
Sizing reference	BSH1001P
Network number of phases	3
Accuracy error [angular]	1.4 °
Temperature copper hot	120 °C
Temperature magnet hot	100 °C
Temperature magnet rt	20 °C

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	15.4 cm
Package 1 Width	16.3 cm
Package 1 Length	40.7 cm
Package 1 Weight	4.3 kg

Contractual warranty

Warranty (in months)	18
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

Use Better



Materials and Substances

EU RoHS Directive

[Compliant By Exemption](#)

PVC free

Yes

Use Longer



Lifetime extension

Repair

No

Use Again



Repack and remanufacture

End of life manual availability

No need of specific recycling operations

WEEE Label



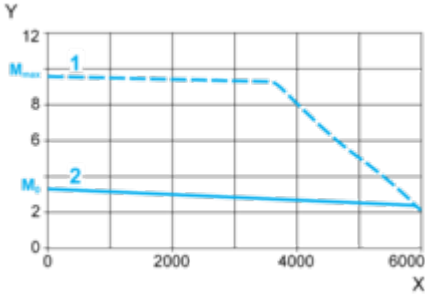
The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32-D18N4 servo drive



X Speed in rpm

Y Torque in Nm

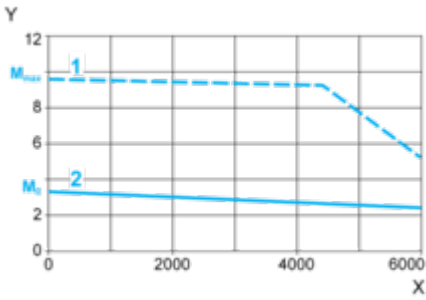
1 Peak torque

2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D18N4 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque